

Catalogue of American Amphibians and Reptiles.

Daniells, E.A., N.J. Vélez Espinet, R.S. Thorpe, and R. Powell. 2010. *Sphaerodactylus fantasticus*.

***Sphaerodactylus fantasticus* (Cuvier)
Southern Leeward Dwarf Gecko, Fantastic
Least Gecko, Sphérodactyle bizarre, Little
Woodslave**

Sphaerodactylus fantasticus Cuvier 1836:406. Type-locality, "Martinique" (in error), revised to Guadeloupe by Barbour (1915) and further restricted to the city of Basse-Terre, Guadeloupe, by Thomas (1965). Six syntypes, Muséum national d'Histoire naturelle (MNHN) 1770, 1999.8243 (formerly 1770A), 1999.8244 (formerly 1770B), 1772, 1999.8245 (formerly 1772A), and 1999.8246 (formerly 1772B), all adults, collected by Auguste Plee, date of collection unknown (not examined by authors). See **Remarks**.

Sphaerodactylus fantasticus: Boulenger 1885:223.

Sphaerodactylus sputator: Barbour 1914:270 (part). See **Remarks**.

• **CONTENT.** Eight subspecies are currently recognized: *S. f. fantasticus*, *S. f. anidrotus*, *S. f. fuga*, *S. f. hippomanes*, *S. f. karukera*, *S. f. ligniservulus*, *S. f. orescius*, and *S. f. tartaropylorus*. Apart from populations on Les Saintes originally described by Thomas (1964) as *S. f. physacinus* and now recognized as a full species (Thorpe et al. 2008), the subspecies do not generally correspond well to major phylogeographic lineages and are not distinguished by multivariate analyses in Thorpe et al. (2008).

• **DEFINITION.** *Sphaerodactylus fantasticus* is a moderately sized dwarf gecko (male SVL to 28 mm, female SVL to 29 mm) with large, keeled, acute to round, and slightly imbricate dorsal scales, 23–41 from axilla to groin, and a middorsal area of granular scales. Dorsal scales have both knoblike and hair-bearing scale organs. Ventrals are keeled or smooth and acute to round, and number 23–34 from axilla to groin. Scale rows at midbody number 40–58. Dorsal caudal scales are weakly keeled, flat, imbricate, and acute. Midventral caudal scales are enlarged. Snout scales are flat, weakly keeled, and juxtaposed. Other head scales include 2 postnasals, 1–3 (mode 2) internasals (see **Remarks**), and 3 upper labials to mid-eye. The escutcheon is 3–6 x 23–30 scales.

The pattern is sexually dichromatic. Males have uniform brown heads or light brown heads with dark brown speckling or dark brown postorbital stripes, but the basic cephalic pattern may be variously modified to form a series of disjunct dark markings that may outline the basic pattern or become merely a pattern of dark spots or vermiculations on a light ground color, or a reversal of coloration occurs and the pattern is one of light spots on a dark ground color characterized by an abrupt ending along a line across the back of the head or neck resulting in a sharp contrast



FIGURE 1. Adult male (top) and female *Sphaerodactylus fantasticus orescius* from Bois Sergent, Basse Terre, Guadeloupe. Photographs © Anita Malhotra (from Malhotra and Thorpe 1999).



FIGURE 2. Adult male (top) and female *Sphaerodactylus fantasticus fuga* from Batali Beach, St. Joseph Parish, Commonwealth of Dominica. Photographs by Robert Powell.

with the body coloration. Females have light- to medium-brown heads with dark brown postorbital stripes extending caudad along the neck and fading on the trunk. The basic cephalic pattern consist of a central, dark, light-centered, elongated, shield-shaped cephalic figure with a thin extension anteriorly between the eyes to the snout and posteriorly onto the midline

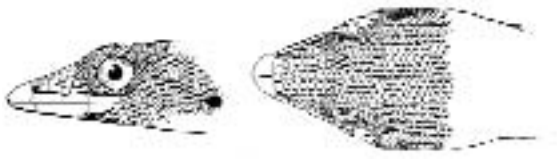


FIGURE 3. *Sphaerodactylus fantasticus* (from Barbour 1921).



Figure 4. “Basic pattern” of *Sphaerodactylus fantasticus* (from Thomas 1964).

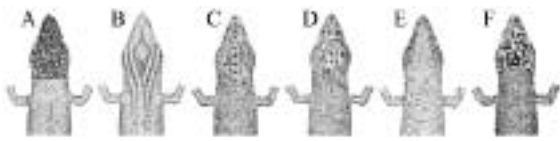


Figure 5. Dorsal patterns of (A) *Sphaerodactylus f. fantasticus*, (B) *S. f. orescius*, (C) *S. f. tartaropylorus*, (D) *S. f. karukera*, (E) *S. f. hippomanes*, and (F) *S. f. anidrotus* (from Thomas 1964).

of the neck. Light-edged dark postocular stripes proceed caudad and mesiad across the temporal region and onto the neck, where they continue as paravertebral stripes to the scapular region. The basic dorsal body coloration is a salt-and-pepper mottling of light and dark scales, either of which may predominate and therefore serve as the ground color. The minority scales are both isolated and grouped to form small, oblique bars usually one scale wide on the flanks. These bars form a complex, angular, beadwork-like pattern. The intact tail has a series of dark-edged, light ocelli (usually paired) irregularly arranged along its dorsal surface along with other, less distinct, transverse or longitudinal dark markings. The basic gular pattern is a series of dark lines which radiate from the region of the eye across the labials and onto the gular region, where they continue caudad and mesiad and end on the throat. Ventral surfaces are uniformly light-colored, sometimes with dark edging to the scales.

• **DIAGNOSIS.** *Sphaerodactylus fantasticus* can be distinguished from its only sympatric congener, *S. vincenti monilifer* on Dominica, by the sharply demarcated deep blue to black head with scattered light spots in males and a V-mark on the head that continues as stripes onto the body in females (*S. f. fuga*) versus the lack of sharply demarcated head color and the presence of scapular ocelli in male *S. v. monilifer*

and scapular spots in females (Steinberg et al. 2008).

• **DESCRIPTIONS.** Descriptions of the species, other than the originals of Cuvier (1836), King (1962), and Thomas (1964), are in Barbour (1921), Breuil (2002), Malhotra and Thorpe (1999), and Schwartz and Henderson (1991). Thorpe et al. (2008) provided a table with an islet-by-islet comparison of 14 traits.

• **ILLUSTRATIONS.** Breuil (2002), Evans and James (1997), Jones (1999, including all phylogeographic lineages and male and female pattern types), and Malhotra and Thorpe (1999) provided color photographs. Color photographs also are on the inside-front and back covers of *Iguana*, volume 15, number 3. Daniells et al. (2008) included black-and-white photographs. Colored and other line drawings are in Duméril and Bibron (1837, 1854: pl. 32). Line drawings also were provided by Barbour (1921), Breuil (2002), King (1962), and Thomas (1964).

• **DISTRIBUTION.** *Sphaerodactylus fantasticus* is found in the central Lesser Antilles: Montserrat, Guadeloupe and satellites, Marie-Galante, La Désirade, and Dominica. The range was previously illustrated by Breuil (2002), Schwartz and Henderson (1991), Thomas (1964), and Thorpe et al. (2008). Ranges that include Venezuela and Mexico (most recently, Wermuth 1965) are based on erroneous 19th-century interpretations of species limits.

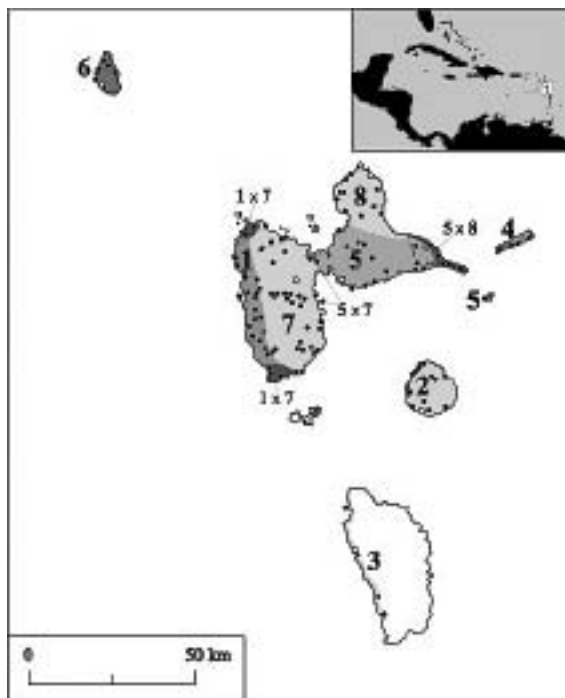
• **FOSSIL RECORD.** None.

• **PERTINENT LITERATURE.** Breuil (2002), Schwartz and Henderson (1991), and Henderson and Powell (2009) summarized natural history. Jones (1999) and Thorpe et al. (2008) discussed the evolutionary history of the species. Hass (1991, 1996) addressed phylogenetic relationships among all Antillean *Sphaerodactylus*. Parker (1940) and Goldberg and Burse (2000) provided anatomical and parasitological data, respectively.

The species is included in general works, checklists, guides, and keys (some may include brief descriptions) by Barbour (1914, 1915, 1930, 1935, 1937), Bullock and Evans (1990), Censky and Kaiser (1999), Cochran (1938), Corke (1992), Daniells et al. (2008), Evans (1989), Evans and James (1997), Frank and Ramus (1995), Hutchins et al. (2002), James (2004), Johnson (1988), Kluge (1991, 1993, 1995, 2001), MacLean et al. (1977), Malhotra et al. (2007), Powell et al. (1996), Rösler (2000), Schwartz (1964, 1973), Schwartz and Henderson (1985, 1988), Schwartz and Thomas (1975), Sokolov (1988), Underwood (1962), and Wermuth (1965).

• **REMARKS.** The name *Sphaerodactylus fantasticus* has been associated with Duméril and Bibron (1836) by most authorities. Kluge (1993, 2001) cited Cuvier as the describer, and Duméril and Bibron clearly attributed the description to him.

Barbour (1914) listed *S. fantasticus* in the synonymy-



MAP. Distribution of *Sphaerodactylus fantasticus*; circles represent type-localities, other localities are marked with dots (modified from Schwartz and Henderson 1991 and Breuil 2002). Gray dots near question marks indicate records that are not assigned to any currently recognized subspecies (Breuil 2002).

my of *S. sputator* based on statements in Andersson (1900), but also suggested that each species probably is “confined to a single island.” Barbour (1915) clearly separated the two species and further clarified the origins of the type material for *S. fantasticus*.

Discrepancies in “internasal” counts by Thomas (1964) and Jones (1999) were consistent, suggesting that they used different criteria in counting these scales. The term “internasal” is used in the **Definition** above and in subspecific accounts based on Thomas (1964). Counts based on Jones (1999) are explicitly described in subspecific accounts as “scales between nares in contact with the rostral.” Note also that information from Jones (1999) was based on localities that could not always be assigned to currently recognized subspecies (see **Content**) and is included in subspecific accounts only when clearly applicable.

• **ETYMOLOGY.** The specific epithet, *fantasticus*, is from the Latin for “fanciful” (Underwood 1962), presumably in reference to the spotted head pattern in males of some subspecies. Subspecific names attributable to Thomas (1964) are: *anidrotus*, from the Greek for “no sweat,” because they were easy to find and catch; *fuga*, from the Latin for flight or exile, in reference to the apparently recent dispersal of this form from Guadeloupe; *hippomanes*, in reference to the infamous Manchineel trees that abound in the maritime woods where these lizards were collected; *karukera*, from the original Carib Indian name for the

island of Guadeloupe; *orescius*, in reference to the mountainous ridge of Basse-Terre, which overshadows the range of the subspecies; and *tartarophlorus*, an allusion to the type-locality in northern Grande-Terre. The subspecific name *ligniservulus* (King 1962) is from the Latin for “little wood-slave” (Underwood 1962), presumably in reference to the local common name for these lizards.

COMMENT. The elevation of *Sphaerodactylus phyzacinus* from a subspecies within the *S. fantasticus* complex was based largely on extraordinarily high (27.4%) divergence in mtDNA (Thorpe et al. 2008). However, mtDNA divergence is generally not accepted as the sole basis for species recognition. Although no single morphological trait distinguishes *S. phyzacinus* from all races of *S. fantasticus*, they are divergent when multivariate analyses are employed. Male *S. phyzacinus* tend to be smaller, have fewer toe lamellae, and tend not to have pronounced keeling of the scales; females tend to have no dorsal stripes, tend not to be heavily keeled, and tend to have an intensely pigmented head with little red hue, a high green and low blue hue to the trunk, a strong contrast between the amount of red on some trunk scales compared to others, and a weak contrast in blue.

1. *Sphaerodactylus fantasticus fantasticus* (Cuvier)

Sphaerodactylus fantasticus Cuvier 1836:406. See species synonymy.

Sphaerodactylus fantasticus: Boulenger 1885:223. See species synonymy.

Sphaerodactylus sputator: Barbour 1914:270 (part). See species synonymy.

Sphaerodactylus fantasticus fantasticus: King 1962 7:22. First use of trinomial.

• **DEFINITION.** This subspecies is characterized by the following combination of characters (Thomas 1964; Jones 1999): SVL to 29 mm; dorsal scales large, keeled, acute to round, and slightly imbricate, 30–41 axilla to groin, with knoblike scale organs and hair-bearing scale organs, each with one hair; ventrals lightly keeled or smooth (keeled dorsal scales extend down onto lateral edges of venter, and in some individuals continue across stomach), and acute to round; 27–32 axilla to groin; scale rows around midbody 48–57; internasals 1–3; scales between nares in contact with the rostral 4.0–4.4 in males and 4.0–4.6 in females (means from different localities); escutcheon 23–29 x 3–5 scales (4.4–4.8 x 22.8–25.4, means from different localities); dorsal caudal scales keeled, acute, and imbricate, but lie flat against tail; lamellae of fourth toe 8–12.

The pattern is sexually dichromatic. Both sexes have a brown dorsal ground color. Females have dark brown stripes from the nostrils to the eyes, which continue as postorbital dark stripes onto the neck and converge slightly in the scapular region. In some individuals, dark stripes, beginning as subpostorbital stripes, parallel the postorbital stripes on the

neck and in the scapular region, and are separated from them by a light strip of ground color. Both fade into the ground color on the trunk. A dark stripe extends from the snout to a point between the eyes where it divides, each branch continuing to a point immediately behind the orbit, then continuing caudad and toward the midline. Anterior to the scapular region they unite to form a dark vertebral stripe, exactly the width of the area of middorsal granules, that continues to the base of the tail. The occipital spot is white to light brown and has a dark brown outline, and may be connected by dark lines to the head stripes. In some individuals this complex of markings is obscure or ill-defined, in others sharp and distinct. Males have a light brown head which may lack all markings, or have only a hint of the female pattern. Other males have the dark stripes broken into small dark brown spots scattered evenly over the sides and upper surface. In still others, the dark brown spots coalesce to produce a dark head with light stripes or spots. Trunk markings of both sexes are the same. Both have the dark vertebral stripe and a scattering of dark scales which form rough crossbands or vermiculations. The ground color of the tail becomes lighter than the body color at its base, changing to a dull white or light brown toward the tip. Dark scales on the tail form broken longitudinal lines, crossbands, or spots, or may enclose a few white scales to form ocelli. The chin and throat are uniformly white or may have a series of dark brown scales arranged in longitudinal rows. The juvenile pattern is similar to that of the adult female except that the pattern is usually sharp and clear.

2. *Sphaerodactylus fantasticus anidrotus* Thomas

Sphaerodactylus fantasticus anidrotus Thomas 1964: 383. Type-locality, "5 km SE Grande-Bourg, Marie-Galante." Holotype, Museum of Comparative Zoology (MCZ) 77123, an adult male, collected by R. Thomas on 1 March 1963 (not examined by authors).

• **DEFINITION.** This subspecies is distinguished from all other races by the heavily vermiculate head pattern and other coloration differences and from all but *S. f. fantasticus* by a much higher range of axilla to groin dorsal scales. Characteristics include (Thomas 1964; Jones 1999): SVL to 25 mm; dorsal scales moderately sized, acute to rounded, keeled and slightly imbricate, with 30–41 scales from axilla to groin; ventrals acute to rounded, imbricate and keeled in the gular and pectoral regions, with 26–33 scales from axilla to groin along the midventral line; scales around midbody 46–56; escutcheon 3.8–4.6 x 25.2–26.2 scales (means from different localities); 2 internasals; scales between nares in contact with the rostral 4.0–4.2 in males and females (means from different localities); mean number of fourth toe lamellae 9.8.

Dorsal ground color of the head is black with large gray vermiculations; the black ground color ends

abruptly along a line across the back of the head shortly behind a prominent white parietal spot; vermiculations continue briefly onto the neck after cessation of the black ground color. Dorsal ground color is yellowish-brown to tan with a peppering of darker brown scales forming some angular barring on the flanks. The throat is heavily marbled with light vermiculations on a black ground color. The venter is clear yellowish in life; dark edging occurs on some ventral scales. The intact tail is orange with hazy brown transverse and longitudinal markings.

3. *Sphaerodactylus fantasticus fuga* Thomas

Sphaerodactylus fantasticus fuga Thomas 1964:384. Type-locality, "1 mi. N Morne Raquette, St. Joseph Parish, Dominica." Holotype, Museum of Comparative Zoology (MCZ) 77107, an adult male, collected by R. Thomas on 11 March 1963 (not examined by authors).

• **DEFINITION.** This subspecies is distinguished from *S. f. fantasticus* (which has identical male head markings in the southern part of its range) by lower average dorsal and midbody scale counts (see **Remarks** below). Males in all other currently recognized subspecies lack blue heads with light vermiculations. Characteristics include (Thomas 1964; Jones 1999): SVL to 27 mm; dorsal scales small to moderate, obtuse to rounded, keeled and slightly imbricate, with 30–40 from axilla to groin; ventral scales acute to rounded, imbricate and unkeeled, with 28 from axilla to groin along the midventral line (holotype); scale rows around midbody 44–53 (47.4–49.2 in males and 47.4–50.0 in females, means from 4 localities); escutcheon 4.2–4.6 x 22.2–23.4 scales (means of 4 localities); 3 internasals (holotype); scales between the nares in contact with the rostral 4.0–4.2 in males and 4.0–4.6 in females (means of 4 localities); mean number of fourth toe lamellae 9.0.

Dorsal head coloration consists of small, isolated gray spots on a dark blue ground color. The dorsum is yellowish-brown. Throat patterns vary from weakly developed (nearly absent) to prominent, dark gular barring; gular ground color pale yellow; the venter is bright yellow-gray, and ventral scales are edged with dark pigment. The tail is yellowish-brown above, bright yellowish-gray below. The iris is pale blue.

• **REMARKS.** Evans (1989) suggested that this subspecies was introduced on Dominica. Jones (1999), Malhotra et al. (2007), and Thorpe et al. (2008) indicated that this subspecies was morphologically and genetically similar to populations on western Basse Terre, Guadeloupe (*S. f. fantasticus*), probably were recent (but pre-human) colonists of Dominica, and may not warrant subspecific status.

4. *Sphaerodactylus fantasticus hippomanes* Thomas

Sphaerodactylus fantasticus hippomanes Thomas 1964:381. Type-locality, "Baie Mahault, [La] Désir-

ade." Holotype, Museum of Comparative Zoology (MCZ) 77101, an adult male, collected by R. Thomas on 7 March 1963 (not examined by authors). *Sphaerodactylus fantasticus hippomane*: Breuil 2002:215. *Lapsus*.

• **DEFINITION.** This subspecies is distinguished from all other races by the lack of an ocellate pattern on intact tails, unicolor yellowish-tan to reddish brown heads, fine, almost reticulate dorsal body patterns, unpatterned throats, and blue-gray irises. Characteristics include (Thomas 1964; Jones 1999): SVL to 25 mm; dorsal scales moderately large, obtuse to rounded, heavily keeled, and slightly imbricate, with 28–36 scales from axilla to groin; middorsal granular scales weakly keeled and usually in 2 rows; ventral scales acute to rounded, keeled in the gular region, with 28–32 scales from axilla to groin along the midventral line; scales around midbody 44–53; escutcheon 3.8 x 22.0 scales (mean from a single locality); 2 internasals; mean number of scales between the nares in contact with the rostral 4.0; mean number of fourth toe lamellae 10.2 in males and 10.6 in females.

The dorsal color of the head is reddish brown (some are yellowish-tan), with no cephalic pattern. Dorsal body coloration consists of a reticulum of dark brown scales evenly distributed on a tan ground color. Throat color in life is a dirty yellowish-gray with no markings; ventral coloration is grayish to pale pinkish-gray in life. Coloration of intact tails consists of numerous, anastomosing, short, irregular, longitudinal dark elements on a light ground color. Underside of the tail is yellowish in life. The iris is blue-gray in life.

5. *Sphaerodactylus fantasticus karukera* Thomas

Sphaerodactylus fantasticus karukera Thomas 1964: 380. Type-locality, "Gosier, [on the Grande-Terre portion of] Guadeloupe." Holotype, Museum of Comparative Zoology (MCZ) 77088, an adult male, collected by A. Schwartz, R. Thomas, and natives on 19 January 1963 (not examined by authors).

• **DEFINITION.** This subspecies is distinguished from all other races by the possession of a brown iris, high midbody scale counts, and an obscure and fragmented cephalic pattern. Characteristics include (Thomas 1964): SVL to 27 mm; dorsal scales large, rounded, heavily keeled, and slightly imbricate, with 26–34 scales from axilla to groin; ventral scales rounded (except where deformed) and imbricate, keeled in gular and pectoral regions and on the sides of the abdomen, with 29–37 scales from axilla to groin along the midventral line; midbody scales 50–55; escutcheon 4 x 30 scales; 2 internasals; fourth toe of right foot with 10 lamellae.

Dorsal ground color of the head is tan (faintly yellowish in life), and the head pattern consists of a series of dark vermiculations. Posterior to the head faint lines, corresponding to postocular stripes, converge toward the midline of the neck. Dorsal coloration is a salt-and-pepper mottling that varies from nearly uni-

form dark brown to a typical mixture of dark and light scales with some angular patterning evident. Throats of males are unmarked, faintly or extensively stippled with brown. Throats of females are lightly flecked with brown spots. The ground color of the throat is yellow in life. Ventrals light (gray to flesh-colored in life).

• **REMARKS.** The distribution in Schwartz and Henderson (1991) is disjunct and includes Petit Terre.

6. *Sphaerodactylus fantasticus ligniservulus* King

Sphaerodactylus fantasticus ligniservulus King 1962: 25. Type-locality, "Plymouth, [St. Anthony's Parish,] Montserrat." Holotype, Museum of Comparative Zoology (MCZ) 66968, an adult male, collected by Père Pinchon on 7 August 1957 (not examined by authors).

• **DEFINITION.** This subspecies is characterized by the following combination of characters (Thomas 1964; Jones 1999): SVL to 26.5 mm; dorsal scales keeled, acute to round, and slightly imbricate, with 30–38 from axilla to groin; knoblike and hair-bearing scale organs, each scale with 1–2 hairs; dorsal caudal scales keeled, acute, and imbricate, but lie flat against tail, midventral row transversely expanded; ventrals smooth, acute to round, with 32–34 scales from axilla to groin; midbody scales 52–58; escutcheon 24.0–25.0 x 4.2 scales (means from 2 localities); 2 internasals; mean number of fourth toe lamellae 9.0 for both localities sampled.

Males have obscure medium-brown stripes that extend from the nostril to the eye, continue caudad from the eyes as postorbital dark stripes, and extend onto the neck where they swing toward the midline to become paravertebral stripes before continuing onto the trunk where they fade into the ground color. A faint dark stripe extends from the tip of the snout to a point between the eyes where it divides. Branches continue caudad, swing slightly laterad to encircle the occipital spot, and return to the midline where they fuse before immediately fading into the ground color of the scapular region. The occipital spot is a light gray-brown triangle with dark edges. The trunk is a uniform light brown. The area of middorsal granular scales is slightly darker than the surrounding scales. The tail is light brown, with scattered white scales arranged in irregular transverse series. The chin, throat, and venter are white. The pattern of the female is like that of the male, but much more vivid. The stripe from the nostril to the eye is dark brown. The postorbital stripes are dark brown to black, and are bordered above and below by light brown to white stripes of equal width. They continue as paravertebral stripes along the trunk and onto the base of the tail. The venter is white, the edge of each scale sparsely stippled with black. The iris is blue.

• **REMARKS.** King (1962) suggested that *Sphaerodactylus f. ligniservulus* appears to be "almost intermediate" between *S. f. fantasticus* of Guadeloupe

and *S. sabanus* of nearby Saba and the St. Christopher Bank, inappropriately implying a relationship based solely on similarities in appearance that has not been confirmed (*S. sabanus* is outside the *S. fantasticus* complex). He stated that the color patterns of all 3 forms are similar, and imagining how the *S. sabanus* pattern could be derived from the *S. fantasticus* pattern is easy. *Sphaerodactylus f. fantasticus* has large dorsal scales (23–24 axilla to groin), *S. sabanus* has smaller scales (33–42 axilla to groin), and *S. f. ligniservulus* is intermediate (35–38 scales axilla to groin). The latter is intermediate in other scutellation differences between *S. f. fantasticus* and *S. sabanus*. However, no *S. fantasticus* form possesses as many presacral vertebrae as *S. sabanus*.

7. *Sphaerodactylus fantasticus orescius* Thomas

Sphaerodactylus fantasticus orescius Thomas 1964: 377. Type-locality, “1 km S Prise d’Eau, [Basse-Terre portion of] Guadeloupe, at 600’.” Holotype, Museum of Comparative Zoology (MCZ) 77077, an adult female, collected by A. Schwartz and R. Thomas on 24 January 1963 (not examined by authors).

• **DEFINITION.** This subspecies is distinguished from all other races by the entirely keeled venter and obliteration of the cephalic pattern of females anterior to a line across the head at approximately the level of the parietal spot, or a very prominent, well-defined basic cephalic pattern in females. Characteristics include (Thomas 1964; Jones 1999): SVL to 27 mm; dorsal scales large, rounded, heavily keeled, and slightly imbricate, with 23–32 scales from axilla to groin; ventral scales rounded, usually (41 of 47) keeled over entire ventral surface, and imbricate, with 23–32 scales from axilla to groin along midventral line; scale rows around midbody 41–49; 2 internasals; number of scales between nares in contact with rostral around 4 (the wide distribution of this “subspecies” renders extraction of data from various localities studied by Jones (1999) difficult; see also **Remarks** below); fourth toe lamellae number around 10 (see previous comment).

Dorsal ground color of the head is tan. A dark brown cephalic pattern extends onto the snout, where it is prominent and broadened, and a posterior extension ends on the neck. The parietal spot is light and rounded. Prominent, brown, preocular lines extend from the snout to the eyes. Light-edged postocular stripes extend across the temporal region, converge toward the midline on the neck, and fade in the scapular region. Dorsal coloration consists of a salt-and-pepper mottling of tan, brown, and dark brown. Series of dorsolateral dark-edged, light ocelli extend along the trunk (approximately 8 on left, 7 on right) and are continuous with the series of paired ocelli on the tail. The dorsal surface of the forelimbs are flecked with light spots; those of the hindlimbs with larger light spots. Gular barring occurs on the sides of the throat. The gular region is flecked with brown. The ventral ground

color is white (orange to coral in life); scales from the pectoral region to the vent are edged with dark pigment. The underside of the tail is orange to coral, with a series of light spots along the ventrolateral surfaces. The iris is pale golden.

• **REMARKS.** This subspecies intergrades with *S. f. fantasticus* in the north between Pointe Noire and Anse des Amandiers northwest of Ste. Rose and in the south between the city of Basse-Terre and Trois Rivières, and with *S. f. karukera* on the isthmus between Grande-Terre and Basse-Terre southwest of Baie-Mahault and on Îlet Fortune (Thomas 1964).

8. *Sphaerodactylus fantasticus tartaropylorus* Thomas

Sphaerodactylus fantasticus tartaropylorus Thomas 1964:379. Type-locality, “Porte d’Enfer, 5.5 km N Campêche, [Grande-Terre portion of] Guadeloupe.” Holotype, Museum of Comparative Zoology (MCZ) 77087, an adult male, collected by A. Schwartz and R. Thomas on 27 February 1963 (not examined by authors).

• **DEFINITION.** This subspecies is distinguished from all other races by the combination of a fragmented cephalic pattern, reduced extensions of the postocular stripes onto the neck, and a blue iris. Characteristics include (Thomas 1964; Jones 1999): SVL to 25; dorsal scales moderately large, obtuse to rounded, heavily keeled, and slightly imbricate, with 23–32 from axilla to groin; ventral scales obtuse to rounded, keeled on the throat, usually keeled on the pectoral regions, and sometimes keeled on the entire venter, imbricate, with 23–32 scales from axilla to groin along the midline; scales around midbody 40–52; escutcheon 3.8–4.4 x 23.0–25.8 scales (means of different localities); 2 internasals; mean number of fourth-toe lamellae 9.0–10.2 in males and females (means of different localities).

Dorsal ground color of the head is tannish-gray with a cephalic pattern of dark spots and bars. The dorsal ground color of the body is light brown with scattered darker scales. Gular ground color is pale yellow, with a pattern of dark spots. The venter is orange, the underside of the tail coral. The iris is blue.

• **REMARKS.** A population of *S. fantasticus* on Îlet à Kahouanne off the northern coast of Basse-Terre was not subspecifically allocated by Thomas (1964).

• **ACKNOWLEDGMENTS.** Richard Thomas helped with the etymologies. Ivan Ineich, Muséum national d’Histoire naturelle, graciously examined the syntypes at our request. Aaron M. Bauer, Rafe Brown, and Robert W. Henderson helped with difficult references.

LITERATURE CITED

Andersson, L.G. 1900. Catalogue of Linnean type-specimens of Linnaeus’s Reptilia in the Royal Mu-

- seum in Stockholm. Bihang tili Kongliga Svenska Vetenskaps-Akademiens Handlingar 26:1–29.
- Barbour, T. 1914. A contribution to the zoögeography of the West Indies, with especial reference to amphibians and reptiles. Mem. Mus. Comp. Zoöl. 44: 209–359.
- . 1915. Recent notes regarding West Indian reptiles and amphibians. Proc. Biol. Soc. Washington 28: 71–78.
- . 1921. *Sphaerodactylus*. Mem. Mus. Comp. Zoöl. 47:217–278 + 26 pl.
- . 1930. A list of Antillean reptiles and amphibians. Zoologica 11:61–116.
- . 1935. A second List of Antillean Reptiles and Amphibians. Zoologica 19:77–141.
- . 1937. Third list of Antillean Reptiles and Amphibians. Bull. Mus. Comp. Zool. Harvard Coll. 82: 76–166.
- Boulenger, G. 1885. Catalogue of the Lizards in the British Museum. Volume 1. 2nd ed. Trustees of the British Museum, (Nat. Hist.), London.
- Breuil, M. 2002. Histoire naturelle des amphibiens et reptiles terrestres de l'Archipel Guadeloupéen. Guadeloupe, Saint-Martin, Saint-Barthélemy. Patrimoines Nat. (54):[iii] + 339 p.
- Bullock, D.J. and P.G.H. Evans. 1990. The distribution, density and biomass of terrestrial reptiles in Dominica, West Indies. J. Zool. Lond. 222:421–443.
- Censky, E.J. and H. Kaiser. 1999. The Lesser Antillean fauna, p. 181–221. In B.I. Crother (ed.), Caribbean Amphibians and Reptiles. Academic Press, San Diego.
- Cochran, D.M. 1938. Reptiles and amphibians from the Lesser Antilles collected by Dr. S.T. Danforth. Proc. Biol. Soc. Washington 51:147–156.
- Corke, D. 1992. The status and conservation needs of the terrestrial herpetofauna of the Windward Islands (West Indies). Biol. Conserv. 62:47–58.
- Cuvier, G. 1836. Le sphérodactyle bizarre. *Sphaerodactylus fantasticus*, p. 406–407. In A.M.C. Duméril and G. Bibron, Erpétologie Générale ou Histoire Naturelle Complète des Reptiles. Vol. 3. Librairie Encyclopédique de Roret, Paris.
- Daniells, E.A., J.W. Ackley, R.E. Carter, P.J. Muellemann, S.M. Rudman, P.A. Turk, N.J. Vélez Espinet, L.A. White, and N.N. Wyszynski. 2008. An annotated checklist of the amphibians and reptiles of Dominica, West Indies. Iguana 15:130–141.
- Duméril, A.M.C. and G. Bibron. 1836. Erpétologie Générale ou Histoire Naturelle Complète des Reptiles. Vol. 3. Librairie Encyclopédique de Roret, Paris.
- and –. 1837. Erpétologie Générale ou Histoire Naturelle Complète des Reptiles. Vol. 4. Librairie Encyclopédique de Roret, Paris.
- and –. 1854. Erpétologie Générale ou Histoire Naturelle Complète des Reptiles. Atlas. Librairie Encyclopédique de Roret, Paris.
- Evans, P. 1989. Herpetofauna of the Commonwealth of Dominica (Windward I., Lesser Antilles), West Indies. Brit. Herpetol. Soc. Bull. (28):5–7.
- and A. James. 1997. Dominica Nature Island of the Caribbean: Wildlife Checklists. Ministry of Tourism, Roseau, Dominica.
- Frank, N. and E. Ramus. 1995. A Complete Guide to Scientific and Common Names of Reptiles and Amphibians of the World. N G Publ., Inc., Pottsville, Pennsylvania.
- Goldberg, S.R. and C.R. Bursley. 2000. New helminth records for one teiid and four gekkonid lizard species from the Lesser Antilles. Carib. J. Sci. 36: 342–344.
- Hass, C.A. 1991. Evolution and biogeography of West Indian *Sphaerodactylus* (Sauria: Gekkonidae): A molecular approach. J. Zool. Lond. 225: 413–426.
- . 1996. Relationships among West Indian geckos of the genus *Sphaerodactylus*: a preliminary analysis of mitochondrial 16S ribosomal RNA sequences, p. 175–194. In R. Powell and R.W. Henderson (eds.), Contributions to West Indian Herpetology: A Tribute to Albert Schwartz. Contrib. Herpetol., vol. 12. SSAR, Ithaca, New York.
- Henderson, R.W. and R. Powell. 2009. Natural History of West Indian Reptiles and Amphibians. Univ. Press of Florida, Gainesville.
- Hutchins, M., J.B. Murphy, and N. Schlager (eds.). 2003. Grzimek's Animal Life Encyclopedia. 2nd ed., Vol. 7. Reptiles. Gale Group, Inc., Farmington Hills, Michigan.
- James, A. 2004. Flora and Fauna of Cabrits National Park, Dominica. Forestry, Wildlife & Parks Division, Roseau.
- Johnson, T.H. 1988. Biodiversity and Conservation in the Caribbean: Profiles of Selected Islands. Monograph No. 1. International Council for Bird Preservation, Cambridge, United Kingdom.
- Jones, A.G. 1999. The Evolutionary History of *Sphaerodactylus fantasticus*. Ph.D. Thesis, Univ. of Wales, Bangor, United Kingdom.
- King, F. 1962. Systematics of Lesser Antillean lizards of the genus *Sphaerodactylus*. Bull. Florida St. Mus. Biol. Sci. (7):1–52.
- Kluge, A.G. 1991. Checklist of gekkonid lizards. Smithsonian Herpetol. Info. Serv. (85):1–35.
- . 1993. Gekkonoid Lizard Taxonomy. International Gecko Society, San Diego, California.
- . 1995. Cladistic relationships of sphaerodactyl lizards. Amer. Mus. Nov. (3139):1–23.
- . 2001. Gekkotan lizard taxonomy. Hamadryad 26: 1–209.
- MacLean, W.P., R. Kellner, and H. Dennis. 1977. Island lists of West Indian amphibians and reptiles. Smithsonian Herpetol. Info. Serv. (40):1–47.
- Malhotra, A. and R.S. Thorpe. 1999. Reptiles & Amphibians of the Eastern Caribbean. Macmillan Educ. Ltd., London.
- , –, E. Hypolite, and A. James. 2007. A report on the status of the herpetofauna of the Commonwealth of Dominica, West Indies. Appl. Herpetol. 4:177–194.
- Parker, H.W. 1940. Undescribed anatomical structures and new species of reptiles and amphibians. Ann. Mag. Nat. Hist. (11)5:257–274.
- Powell, R., R.W. Henderson, K. Adler, and H.A. Dun-

- dee. 1996. An annotated checklist of West Indian amphibians and reptiles, p. 51–93 + 8 pls. *In* R. Powell and R.W. Henderson (eds.), *Contributions to West Indian Herpetology: A Tribute to Albert Schwartz*. *Contrib. Herpetol.*, volume 12. SSAR, Ithaca, New York.
- Rösler, H. 2000. Kommentierte Liste der rezent, sub-rezent und fossil bekannten Geckotaxa (Reptilia: Gekkonomorpha). *Gekkota* 2:28–153.
- Schwartz, A. 1964. A review of *Sphaerodactylus vincenti* on the southern Windward Islands. *Carib. J. Sci.* 4:391–409.
- . 1973. *Sphaerodactylus*. *Cat. Amer. Amphib. Rept.* (142):1–2.
- and R.W. Henderson. 1985. *A Guide to the Identification of the Amphibians and Reptiles of the West Indies Exclusive of Hispaniola*. Milwaukee Public Museum, Milwaukee, Wisconsin.
- and –. 1988. West Indian amphibians and reptiles: a check-list. *Milwaukee Pub. Mus. Contrib. Biol. Geol.* (74):1–264.
- and –. 1991. *Amphibians and Reptiles of the West Indies: Descriptions, Distributions, and Natural History*. Univ. Florida Press, Gainesville.
- and R. Thomas. 1975. A check-list of West Indian amphibians and reptiles. *Carnegie Mus. Nat. Hist. Spec. Publ.* (1):1–216.
- Sokolov, V.E. (ed.). 1988. *Dictionary of Animal Names in Five Languages. Amphibians and Reptiles*. Russky Yazyk Publ., Moscow.
- Steinberg, D.S., J.L. Hite, R. Powell, and R.W. Henderson. 2008. *Sphaerodactylus vincenti*. *Cat. Amer. Amphib. Rept.* (853):1–6.
- Thomas, R. 1964. The races of *Sphaerodactylus fantasticus* Dumeril and Bibron in the Lesser Antilles. *Carib. J. Sci.* 4:373–390.
- Thorpe, R.S., A.G. Jones, A. Malhotra, and Y. Surget-Groba. 2008. Adaptive radiation in Lesser Antillean lizards: Molecular phylogenetics and species recognition in the Lesser Antillean dwarf gecko complex, *Sphaerodactylus fantasticus*. *Mol. Ecol.* 17:1489–1504.
- Underwood, G. 1962. Reptiles of the eastern Caribbean. *Caribbean Affairs* (n.s.) (1): [2] + 192 p.
- Wermuth, H. 1965. Liste der rezenten Amphibien und Reptilien. Gekkonidae, Pygopodidae, Xantusiidae. *Das Tierreich* (80):xxii + 246 p.

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